

इंटरनेट

मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 5068 (1969): Grab Hook [PGD 5: Assembly Hand Tools]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE



Indian Standard
SPECIFICATION FOR
GRAB HOOK

(First Reprint JANUARY 1990)

UDC 614.843:621.885

© Copyright 1969

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR GRAB HOOK

Hand Tools Sectional Committee, EDC 12

<i>Chairman</i>	<i>Representing</i>
SHRI S. K. KEMPAIAH	The Mysore Implements Factory, Hassan
<i>Members</i>	
SHRI N. S. VENKATESHA (<i>Alternate to</i> Shri S. K. Kempaiah)	
SHRI V. K. BHALLA	Usha Forgings & Stampings Limited, New Delhi
SHRI MOHINDER DEWAN (<i>Alternate</i>)	
DIRECTOR OF FLEET MAINTEN- ANCE	Indian Navy
SHRI B. D. GAUR	Railway Board (Ministry of Railways)
SHRI R. T. S. RANGIAH (<i>Alternate</i>)	
LT-COL J. C. JOSHI	Department of Defence Production, Ministry of Defence (DGI)
SHRI M. R. S. SOORMA (<i>Alternate</i>)	
SHRI C. N. KAPOOR	Railway Board (Ministry of Railways)
SHRI D. MAJUMDAR	Development Commissioner, Small Scale Industries (Ministry of Industrial Development & Company Affairs)
SHRI G. B. JAKHETIA (<i>Alternate</i>)	
SHRI S. D. MAJUMDAR	National Test House, Calcutta
SHRI T. H. NIRMAL	Ministry of Food and Agriculture
SHRI GOBINDO PRASAD PAUL	Gobindo Sheet Metal Works & Foundry, Calcutta
SHRI E. K. RAMAKRISHNAN	Kumar Industries, Parli (S. Malabar)
SHRI K. N. P. RAO	The Tata Iron and Steel Co Ltd, Jamshedpur
SHRI U. V. KINI (<i>Alternate</i>)	
SHRI SATISH CHANDRA	Directorate General of Technical Development, New Delhi
SHRI R. P. SOOD	Director of Industries, Government of Haryana
SHRI S. S. TAPARIA	Bahco Taparia Tools Ltd, Nasik
SHRI NILS JAESCHKE (<i>Alternate</i>)	
SHRI T. C. THADANI	Engineer-in-Chief's Branch (Ministry of Defence)
SHRI S. N. VOHRA	Directorate General of Supplies & Disposals, New Delhi
SHRI M. B. PRABHU (<i>Alternate</i>)	
SHRI M. V. PATANKAR, Director (Mech Engg)	Director General, ISI (<i>Ex-officio Member</i>)
<i>Secretary</i>	
SHRI B. L. RAINA	
Assistant Director (Mech Engg), ISI	

(Continued on page 2)

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

(Continued from page 1)

Metal Workers' Tools Subcommittee, EDC 12 : 2

<i>Convener</i>	<i>Representing</i>
SRI S. K. KEMPAIAH	The Mysore Implements Factory, Hassan
<i>Members</i>	
SRI N. S. VENKATESHA (<i>Alternate to</i> Sri S. K. Kempaiah)	
SRI S. C. BISWAS	Mukand Iron & Steel Works Ltd, Bombay
CHIEF MECHANICAL ENGINEER	Railway Board (Ministry of Railways)
SRI S. P. CHOWHAN	Victor Tools Corporation, Jullundur
SRI A. K. GUHA	Directorate General of Supplies & Disposals
SRI M. L. MEHROTRA	Department of Defence Production, Ministry of Defence (DGI)
SRI P. C. P. NAMBOODIRIPAD	South India Metal Co, Shoranur
SRI E. K. RAMAKRISHNAN	Kumar Industries, Parli (S. Malabar)
SRI J. P. SINGH DEO	Presidency Edge Tools Co Ltd, Purulia (W. Bengal)
SRI B. P. SINGH DEO (<i>Alternate</i>)	

Indian Standard

SPECIFICATION FOR GRAB HOOK

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 17 April 1969, after the draft finalized by the Hand Tools Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 This standard lays down the requirements for grab hooks mostly employed by fire services for fire fighting purposes. The tool consists of a piercer and two prongs and is provided with a handle.

0.3 While preparing this standard, assistance has been derived from the information supplied by Directorate General of Civil Aviation, Ministry of Tourism and Civil Aviation, Government of India.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2 - 1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard lays down the requirements for grab hook.

2. MATERIALS

2.1 The hook head and ferrule shall be manufactured from St42-S of IS : 226 - 1962†.

2.2 The handles shall be manufactured from tough, shock-resistant and seasoned timbers and shall conform to class 3 of IS : 620 - 1965‡. Alternatively, if agreed between the supplier and the purchaser, they shall be manufactured from bamboo of *Dendrocalamus stricta* male species.

*Rules for rounding off numerical values (*revised*).

†Specification for structural steel (standard quality) (*third revision*).

‡General requirements for wooden tool handles (*second revision*).

2.2.1 The bamboo shall have been felled long before being used as handles and shall have been dried out. The bamboo shall be treated with a fire resisting chemical and shall be sound and straight, and free from splits, or any other defect. They shall also be free from any damage not extending more than 3 mm below the outer skin due to bad trimming etc. The bamboo shall be free from fungi or insect attack. The diameter of the cavity at the top shall not exceed one fourth the diameter at the top of the bamboo.

3. DIMENSIONS

3.1 The main dimensions of the grab hook shall be as given in Fig. 1.

4. WORKMANSHIP AND FINISH

4.1 The hook head, complete with ferrule, shall be forged to shape as shown in Fig. 1. The hook head shall be suitably heat-treated to withstand bending while piercing holes in metal and wood and pulling heavy objects and shall also be able to resist distortion.

4.2 The forgings shall be free from burrs, cracks and other surface defects. The edges and points shall be well shaped and finished smooth.

4.3 The hook head shall be treated with suitable anticorrosive paint, except the piercing edges and points which shall be bright finished and lacquered.

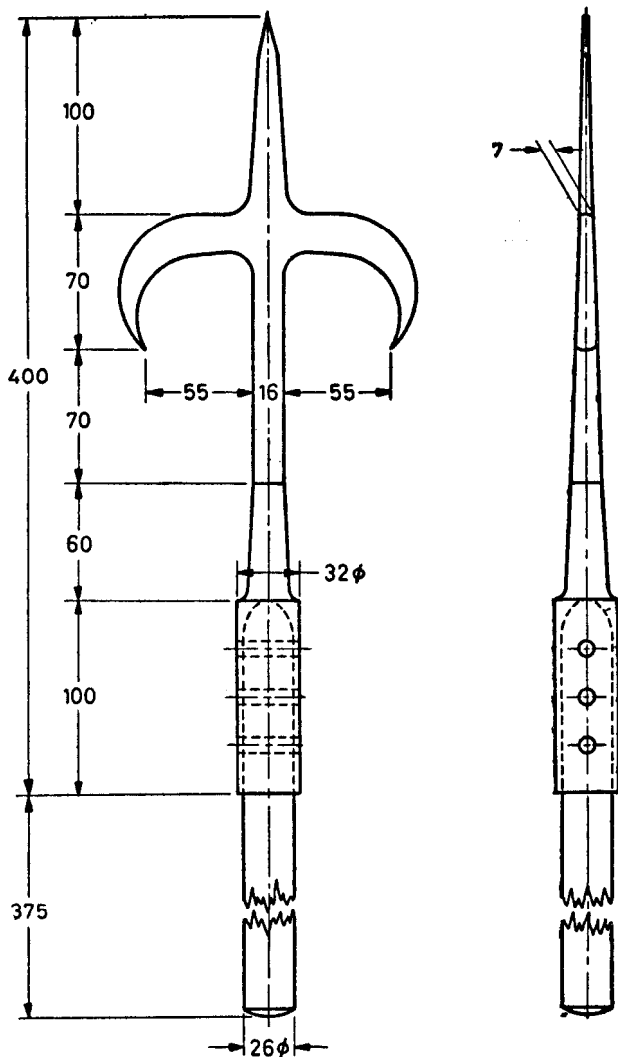
5. MARKING

5.1 The grab hook shall be clearly and permanently marked with the following:

- a) Manufacturer's name or trade-mark,
- b) The letters 'Ref ISS 5068', and
- c) Year of manufacture.

5.1.1 The grab hook may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.



All dimensions in millimetres.

FIG. 1 DIMENSIONS FOR GRAB HOOK

6. PACKING

6.1 The grab hook shall be packed in accordance with best prevalent trade practice.

7. SAMPLING

7.1 Unless otherwise agreed to between the supplier and the purchaser, the scale of sampling and criteria for conformity as given in Appendix A shall be followed.

8. TESTS

8.1 Each prong of the grab hook shall be engaged to a horizontal spar and a load of 150 kgf shall be applied vertically to the handle. After the completion of test the hook grab shall neither bend nor shall show any sign of damage.

8.2 The piercer shall pierce 6 holes through three thicknesses of 3.15 mm aluminium sheets. After the test, the piercer shall not show any sign of bluntness or damage.

APPENDIX A

(Clause 7.1)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

A-1. SCALE OF SAMPLING

A-1.1 Lot — In any consignment all the grab hooks of the same type manufactured from the same raw material shall constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of this specification tests shall be carried out for each lot separately. The number of grab hooks to be selected at random for this purpose shall be in accordance with col 1 and 2 of Table 1. To ensure the randomness of selection, IS: 4905 - 1968* may be used.

A-2. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 The grab hooks selected according to A-1.2 shall be examined for dimensions (see 3.1) and workmanship and finish (see 4). Any grab hook failing to meet the requirements for anyone or more of the characteristics shall be considered defective.

A-2.1.1 The lot shall be considered satisfactory with respect to the requirements given in A-2.1 if the number of grab hooks found defective is less than or equal to the corresponding number given in col 3 of Table 1.

*Methods for random sampling.

**TABLE 1 SCALE OF SAMPLING AND PERMISSIBLE
NUMBER OF DEFECTIVES**

(Clauses A-1.2, A-2.1.1 and A-2.2)

LOT SIZE	SAMPLE SIZE	PERMISSIBLE NO. OF DEFECTIVES	SUB-SAMPLE SIZE
(1)	(2)	(3)	(4)
Up to 25	3	0	2
26 „ 100	5	0	2
101 „ 150	8	0	3
151 „ 300	13	1	3
301 „ 500	20	1	5
501 and above	32	2	8

A-2.2 In case of those lots which are found satisfactory according to **A-2.1.1** the number of grab hooks corresponding to col 4 of Table 1 shall be selected and examined for tests (*see 8*). Any grab hook not satisfying the specified requirements shall be considered defective.

A-2.2.1 The lot shall be considered in conformity with the requirements of this specification if all the grab hooks examined according to **A-2.2** are found satisfactory for the relevant requirements.

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones: 331 01 31, 331 13 75

Telegrams: Manaksanstha
(Common to all Offices)

Regional Offices:

	Telephone
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002	{ 331 01 31 331 13 75 36 24 99
*Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola, CALCUTTA 700054	{ 2 18 43 3 16 41 41 24 42
Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036	{ 41 25 19 41 29 16
Southern : C. I. T. Campus, MADRAS 600113	{ 6 32 92 95
†Western : Manakalaya, E9 MIDC, Marol, Andheri (East), BOMBAY 400093	

Branch Offices:

'Pushpak', Nurmohamed Shaikh Marg, Khanpur, AHMADABAD 380001	{ 2 63 48 2 63 49
‡Peenya Industrial Area 1st Stage, Bangalore Tumkur Road BANGALORE 560058	{ 38 49 55 38 49 56
Gangotri Complex, 5th Floor, Bhadbhada Road, T. T. Nagar, BHOPAL 462003	6 67 16
Plot No. 82/83, Lewis Road, BHUBANESHWAR 751002	5 36 27
53/5, Ward No. 29, R.G. Barua Road, 5th Byelane, GUWAHATI 781003	3 31 77
5-8-56C L. N. Gupta Marg (Nampally Station Road), HYDERABAD 500001	23 10 83
R14 Yudhister Marg, C Scheme, JAIPUR 302005	{ 6 34 71 6 98 32
117/418 B Sarvodaya Nagar, KANPUR 208005	{ 21 68 76 21 82 92
Patliputra Industrial Estate, PATNA 800013	6 23 05
T.C. No. 14/1421, University P.O., Palayam TRIVANDRUM 695035	{ 6 21 04 6 21 17

Inspection Offices (With Sale Point):

Pushpanjali, First Floor, 205-A West High Court Road, Shankar Nagar Square, NAGPUR 440010	2 51 71
Institution of Engineers (India) Building, 1332 Shivaji Nagar, PUNE 411005	5 24 35

*Sales Office in Calcutta is at 5 Chowringhee Approach, P. O. Princep Street, Calcutta 700072

†Sales Office in Bombay is at Novelty Chambers, Grant Road, 89 65 28 Bombay 400007

‡Sales Office in Bangalore is at Unity Building, Narasimharaja Square, 22 36 71 Bangalore 560002